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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,502	02/27/2007	Caroline Heiligenmann	2003P01931WOUS	3692

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INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

KO, STEPHEN K

ART UNIT	PAPER NUMBER
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1714

NOTIFICATION DATE	DELIVERY MODE
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07/14/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/583,502	Applicant(s) HEILIGENMANN ET AL.	
	Examiner STEPHEN KO	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) 31-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 03/31/2010. These drawings are acceptable.

Specification

2. Objection to the specification is withdrawn in view of applicants' amendment to the specification.

Claim Objections

3. Claim 21 is objected to because of the following informalities: Claim 21 recites limitation "the gas having **an** oxidizing effect" in line 6 of claim 21. The limitation is apparently should be written as "the gas having **the** oxidizing effect". Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. Rejection to claim 21 under 35 U.S.C. 101 is withdrawn in view of applicants' amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 21 recites limitations "one or more devices for generating a gas having an oxidizing effect that is employed in a wash program" and "the gas having an oxidizing

Art Unit: 1714

effect is provided to the washing container during the wash program” in lines 2-5 and 6-7 of claim 21 respectively. The gas having the oxidizing effect cannot be employed or provided in/to the wash program because wash program is computer codes/signal. However, the gas can be employed or provided in a wash process. It is assumed that the wash program recited in claim 21 means wash process for examination purpose.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 21-24, 27-28, 30 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-014844.

JP 10-014844 teaches a device for washing and disinfecting dish and other tableware (title) comprising a washing container (Fig.1, #2), devices for applying rinsing liquor to the items to be washed in the washing container (Fig.1, #7); and one device for generating a gas having an oxidizing effect which is fully capable of being employed in a wash program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding into an interior of the washing container for use, for cleaning and disinfection (Fig.1).

For claim 22, note that the gas having an oxidizing effect can be applied to the items to be washed in cooperation with mist in the interior of the washing container (abstract).

For claim 23, note that the mist can be produced from rinsing liquid or raw water by a nebulising device (read as nebulising nozzle, Fig.1, #63, abstract).

For claim 24, note that the gas having an oxidizing effect is already added to the rinsing liquor or the raw water which is supplied to the nebulising device (Fig.1, #63, abstract).

For claim 27, note that JP 10-014844 teaches a water jet diffuser (Fig.3). Since all the structure are found in the prior art, it is fully capable of performing the functions as recited in claim 27.

For claim 28, note that a water jet pump (Fig.1, #6) is disposed in a raw water pipe (Fig.1, unlabeled, the pipe connecting valve #52 and mixer #51 through valve #53, water jet pump #6 and valve #55) or in a circulating pipe (Fig.1, unlabeled, the pipe connecting sump #9 and spray arm through valve #53, water jet pump #6 and valve #55) for acting upon the devices for applying rinsing liquor to the items to be washed. Note that the device is fully capable of passing a portion of the raw water or the rinsing liquor to a branch (Fig.1).

For claim 30, note that the gas having an oxidizing effect is ozone (abstract), which is produced in an ozone generator (Fig.1, #40).

For claim 40, JP 10-014844 teaches a device for washing and disinfecting dish and other tableware (title) comprising a washing container (Fig.1, #2) and devices,

Art Unit: 1714

which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig.1, #7), wherein the washing container being operable to receive therein ozone-enriched mist at least for cleaning items to be washed.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1714

12. Claims 21-23, 25, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 2003-144372.

Ono teaches a dishwasher comprising a washing container (Fig.1, #18), devices which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig.1, unlabeled, the orifice of an atomizer #9); an nebulising device which is fully capable of producing mist (Fig.1, #9).

Ono remains silent about one or more devices for generating a gas having an oxidizing effect that is employed in a washing program, wherein the gas having an oxidizing effect is provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

JP 2003-144372 teaches a dishwasher comprising a device for generating a gas having an oxidizing effect (Fig.10, #21, abstract), which is fully capable of being employed in a washing program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by adding the gas into an interior of the washing container (Fig.10) for use, for cleaning and disinfection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of Ono by adding a device for generating a gas having an oxidizing effect as mentioned in JP 2003-144372 to sterilize and deodorize dishes (JP 2003-144372, abstract), thus enhance cleaning efficiency of the

Art Unit: 1714

dishes. Since all the structures are found in the combined prior art, it is fully capable of performing the functions as recited in claim 21.

For claim 22, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of applying the gas having an oxidizing effect to the items to be washed in cooperation with mist in the interior of the washing container.

For claim 23, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of producing the mist from rinsing liquid or raw water by the nebulising device (Ono, Fig.1, #9).

For claim 25, note that the dishwasher of combined teaching of Ono and JP 2003-144372 is fully capable of performing the step of no gas having an oxidizing effect being already added to the rinsing liquor or the raw water which is supplied to the nebulising device. Note that the gas having an oxidizing effect is added directly to the interior of the washing container (JP 2003-144372, Fig.10) in the dishwasher of the combined teaching of Ono and JP 2003-144372.

For claim 28, note that Ono teaches a water jet pump (Ono, Fig.1, #8) is disposed in a circulation pipe (Ono, Fig.1, #7) for acting upon the devices, which is fully capable of applying rinsing liquor to the items to be washed.

For claim 30, note that the dishwasher of combined teaching of Ono and JP 2003-144372 teach the gas having an oxidizing effect is ozone, which is produced in an ozone generator (JP 2003-144372, abstract).

13. Claims 21-24 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 11-137882.

Art Unit: 1714

Ono teaches a dishwasher comprising a washing container (Fig.1, #18), devices which is fully capable of applying rinsing liquor to the items to be washed in the washing container (Fig.1, unlabeled, the orifice of an atomizer #9); an nebulising device which is fully capable of producing mist (Fig.1, #9).

Ono remains silent about one or more devices for generating a gas having an oxidizing effect that is employed in a washing program, wherein the gas having an oxidizing effect is provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

JP 11-137882 teaches a dishwasher comprising a device (Fig.7, #76) for generating a gas having an oxidizing effect that is fully capable of being employed in a washing program, wherein the gas having an oxidizing effect is fully capable of being provided to the washing container during the wash program by at least one of adding the gas to the rinsing liquor, adding the gas to raw water and adding the gas into an interior of the washing container for use, for cleaning and disinfection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of Ono by adding a device for generating a gas having an oxidizing effect as mentioned in JP 11-137882 to reduce COD (Chemical Oxygen Demand) and BOD (Biochemical Oxygen Demand) in drain water (abstract, JP 11-137882), thus provide a more environmental friendly dishwasher. Since all the structures are found in the combined prior art, it is fully capable of performing the functions as recited in claims 21-22 and 24.

For claim 23, note that the dishwasher of combined teaching of Ono and JP 11-137882 is fully capable of producing the mist from rinsing liquid or raw water by the nebulising device (Ono, Fig.1, #9)

For claim 28, note that Ono teaches a water jet pump (Ono, Fig.1, #8) is disposed in a circulation pipe (Ono, Fig.1, #7) for acting upon the devices, which is fully capable of applying rinsing liquor to the items to be washed.

For claim 29, note that the dishwasher of combined teaching of Ono and JP 11-137882 is fully capable of adding the gas having an oxidizing effect to the rinsing liquor or the raw water in a rinsing liquor reservoir (Fig.7 of JP 11-137882, unlabeled, the sump of the dishwasher). The gas having an oxidizing effect is fully capable of preventing growth of bacteria in the rinsing liquor reservoir.

For claim 30, note that the dishwasher of combined teaching of Ono and JP 11-137882 teach the gas having an oxidizing effect is ozone, which is produced in an ozone generator (JP 11-137882, abstract and Fig.7, #76).

14. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,172,572) in view of JP 11-137882 in further view of Veeder et al (US 5,863,031).

Ono and JP 11-137882 teach a dishwasher cited above.

Ono and JP 11-137882 remain silent about the gas having an oxidizing effect is added to the rinsing liquor for solution and reaction, using a porous membrane in the rinsing liquor.

However, Veeder et al teach a porous membrane (Fig.1, #40) in a volume of liquid for adding a gas having an oxidizing effect into the liquid (abstract).

Art Unit: 1714

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dishwasher of combined teaching of Ono and JP 11-137882 by adding a porous membrane such that the gas having an oxidizing effect is added to the rinsing liquor for solution and reaction through the porous membrane in the rinsing liquor as motivated by Veeder et al to produce a finer gas bubbles, so that the surface area of gas exposed to the liquid can be optimized (Veeder et al, col.1, L.31-34).

Response to Arguments

15. Applicant's arguments filed 03/31/2010 have been fully considered but they are not persuasive.

16. Applicants question about the "???" in the last office action under the ground of rejection of JP 10-014844. The Examiner clarifies that the "???" in the last office action under the ground of rejection of JP 10-014844 was a typo.

17. In response to applicant's argument that JP 10-014844 does not teach using gas in the washing program/process, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

18. In response to applicant's argument that Ono is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention.

Art Unit: 1714

See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Ono teaches a structure of a dishwasher, which is in the field of applicant's endeavor.

19. In response to applicant's argument that Ono and JP 2003-144372 do not teach using gas in the washing program/process, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

20. In response to applicant's argument that Ono and JP 11-137882 do not teach using gas in the washing program/process, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

21. Applicants argue that JP 11-137882 teaches away. The Examiner's position is that since Ono does not criticize, discredit, or otherwise discourage the adding of a device for generating a gas having an oxidizing effect as mentioned in JP 11-137882, JP 11-137882 does not teach away.

22. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

Art Unit: 1714

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, the motivations for combining the references are either within the references themselves or knowledge which was within the level of ordinary skill at the time the claimed invention was made (See the rejection above). Moreover, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1714

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN KO whose telephone number is (571)270-3726. The examiner can normally be reached on Monday to Thursday, 7:30am to 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SK

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1714